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A User-Friendly Shopping Street

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Abstract

The primary concern of this paper is to identify the relationship between attributes under physical qualities and activities that contribute to the user-friendly street. Exploratory Factor Analysis (EFA) is used in the early stages to gather information about the interrelationships among variables. The Cronbach's Alpha (α) value was used to determine the level of reliability through the internal consistency for each factor. The result for the validity of all construct achieved Alpha (α) value exceeding 0.70. This research found that there are positive correlation between safety with comfort and convenience, safety with accessibility, and accessibility with comfort and convenience

Keywords: Urban shopping, street, physical quality, street activities, user-friendly

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1.0 Introduction

The increasing population in the city centre every year has a major influence on demand on urban open spaces in urban areas (Bavani, 2008), and, consequently, community spaces have been lost in the urbanisation process (Lim, 2011). This issue constitutes one of the most important concerns of the Draft Kuala Lumpur City Plan 2020 where a population increase from 1.6 million today to 2.2 million by 2020 has been estimated. Apart from the growth in the population, the process of urbanization erodes the urban qualities and character of the urban areas (Shamsuddin, 2011). Urbanisation has resulted in the erosion of the street as a public space, which has also had an effect on public life and urban users (Sulaiman et al., 2001). Therefore, the streets will become a vital space for the public and need to be governed effectively and efficiently to promote an environment that is conducive, sustainable and friendly to all.

The effect of rapid urbanisation in Kuala Lumpur City Centre has compromised the priorities of the pedestrians in the City Centre to the dependence on both private and public vehicular transportation (Shamsuddin et al., 2010). As vehicular traffic has greater freedom of movement, and people depend too much on cars, designers have assumed that the movement of vehicular traffic is a primary concern of urban planning. Urban spaces have been torn down to widen streets for cars and market places have been converted to car parks (Mijan, 2000); the entire existing street network has been destroyed with the notion that fast traffic is the priority (Shamsuddin et al., 2010). Sulaiman (2000) found that one of the reasons for the poor quality of urban spaces in Malaysia is the limited appreciation of the context and the people. Mijan (2000) argued that Malaysian planners and urban designers have failed to provide a broader range of activities and a user-friendly environment that is appropriate for the climatic, physical social and economic circumstances of Malaysian cities.

2.0 Literature Review

The actual needs and preferences of the urban users are the most important quality and should be given more attention in order to re-evaluate the quality and design of the space over time and to create a successful urban space (Jansson et al., 2010, Abdul Rahman et al., 2012). Today, spaces are frequently designed to support the interest of corporate clients, and they do not contribute much to the vitality of public usage. With the fast pace of development, such as in Kuala Lumpur, there is a danger that the city will end up having privatized islands of public open spaces including streets that eventually do not provide support to the various user groups (Mijan, 2000). Through creating a good pedestrian environment, it will provide a well-functioning public domain; invite more people to walk, stay longer and offer a variety of attractive public activities. This will enhance people to socialize more in public spaces (Gehl, 2004).

The needs of the users in the street depend on their activities in the street. Tang et al. (2009) argued that 'the lack of consideration of the human scale activity had led to the lack of characteristics of the city. As a result, humanity is being ignored subjectively and objectively in the planning and designing our living and work space. In such a car dominant city, people would have less and less choice to experience the daily life on foot'. Street

activities are more visible and prominent than activities that occur inside the building and concentration of the activities on the street and their visibility from the street are important in order for the place to be noticeable and more attractive (Abdul Rahman et al., 2014; Shamsuddin, 2011). Frick (2007) posited that the interactive relationship between the activities and behaviour' in the public space and the construction of public space, is imparted by its practical 'functionality' in space. Based on previous studies it has been proven that different cultures and groups of people tend to do different behaviours and activities in the street. Things that might be the supportive characters to activities and behaviour in Western and European countries might not be the supportive elements that affect the activities and behaviour in the Malaysian context. The usage and activity often use as measures of successful urban spaces. Carmona et al. (2003) stated, "The successful public places are characterized by the presence of people".

As identified by previous scholars, determined that the most frequently quoted qualities that are associated with a user-friendly street are comfort and convenience; safety and security and accessibility (Carr et al., 1992; PPS, 2005; Carmona et al, 2003; Burton , 2006). In the case of urban street s, comfort refers to the extent to which street enable people to visit of their choices without a physical and mental discomposure. Comfortable streets are calm, welcoming and pedestrian friendly with facilities and services required (Burton, 2006). Safety refers to streets that enable people to use, enjoy and move around the outside environment without fear of tripping or falling, being run-over or being attacked (Jacobs, 1961). Meanwhile, accessibility means streets that enable the user reach, enter use and walk around the places they want to go; accessible street has local services and facilities, are connected to each other (Lynch,1981; Burton et al., 2006).

Most of the qualities and attributes that been discussed in this chapter are from elsewhere and do not specifically refer to the context of Malaysia or other places with a similar context. Hence, they mostly refer to open spaces, generally, and not specifically to a shopping street. The theories concerning the human needs in open spaces were also mostly not from the perspective of street users in the context of Malaysia or similar but were mostly from Western and European countries.

3.0 Methodology

This study is quantitative in nature using a questionnaire. The survey involved asking respondents to answer a questionnaire that was administered using face to face interview. The sampling of the research is the users of the street in Kuala Lumpur city centre. There were 289 respondents were participated. The case study chosen for this research is Jalan Tuanku Abdul Rahman, which is one of the main urban commercial streets in Kuala Lumpur city centre. The primary concern is to identify the interrelationship between attributes under safety, comfort and accessibility that contributes to the user-friendly street in Malaysia. Three main constructs involved in this study, safety, comfort and convenience and accessibility qualities. Exploratory Factor Analysis (EFA) is used in the early stages to gather information

about the interrelationships among variables. The Cronbach's Alpha (α) value was used to determine the level of reliability through the internal consistency for each factor.

The study was quantitative in nature and involved asking users of the street to answer a face-to-face survey. It contained several sections aimed at ascertaining the background information of the respondents and their physical and activities for user-friendly street (PAS) on the street in the area. The respondents were selected based on convenience sampling, and 289 respondents participated in the survey. Of the respondents, 59.4% were male, and 40.6% were female, indicating that the proportion of the participants appears to be reasonably balanced. The range of age is from 18 to 60 years ($M=2.88$, $SD= 0.87$). 66.1% respondents are single, and 33.9% was married. Mostly respondents working with the government sector (34.2%) followed by the private sector (32.5%), self-employed (7.7%), and others (6.0%). 19.7% respondents are unemployed.

4.0 Findings and Discussions

The construct of physical and activities for user-friendly street (PAS) involved safety three main dimensions namely; safety of the street (SOS), comfort and convenience (COC) and accessibility of the street (AOS). The dimensions were rated using a Likert scale ranging from 1 to 4 ranging from "Strongly Unimportant" to "Strongly Important". The high score will indicate that the conduct is good and vice versa if the score obtained is low. The reason for using a 4-point Likert scale without a neutral answer was to induce the respondent to take a stance. Furthermore, the technique of providing the scales "Strongly Unimportant" to "Strongly Important" will give the result intensity from respondents, thus impacting the distribution of the respondents' score. The validation on the construct is important to verify the items of each construct are valid to measure the dimension using the exploratory factor analysis. EFA is used in the early stages to gather information about the interrelationships among variables. The ratio of subjects to items recommends a 10 to 1 ratio in EFA (Nunnally, 1994). In this research at least 50 samples required to answer for each variable. And this research the 289 respondents participated. The Cronbach's Alpha (α) value was used to determine the level of reliability through the internal consistency for each factor. An item-to-scale value of 0.3 and above was used as the minimum value for a unidimensional scale (De Vellis, 1991) while the scale was considered reliable if the alpha value was 0.6 and above (De Vaus, 1986).

The dimension of the safety of the street (SOS) included 11 items, and 5 items was eliminated because of a corrected item-to-total correlation value is below 0.3. After the elimination of the 5 items, the Alpha (α) value exceeding .68. Meanwhile, the dimension of comfort and convenience (COC) has 3 main variables which are environmental comfort (4 items), physical comfort (14 items) and maintenance (5 items). Each variable exceeded Alpha (α) value more than 0.70 (environmental comfort; $\alpha=.73$, physical comfort; $\alpha=.86$, maintenance; $\alpha=.90$). For the dimension of accessibility and convenience (AOS) consisted 10 items and all items are achieved corrected item-to-total correlation value more than 0.3 with the Alpha (α) value .83 as shown in Table 1.

Table 1: Cronbach's value for physical qualities and activities

Dimensions	Variables	Items	Description of Items	Corrected Item-Total Correlation	Reliability (Cronbach's Alpha)
Safety of the street (SOS),	-	1	Presence of people	-	.68
		2	Presence of security official and patrol police	-	
		3	Presence of activities	-	
		4	Safe crossing device	.47	
		5	Full of activities day and night	-	
		6	Safe environment for elderly, disable and children	.35	
		7	Low traffic flow and speed	-	
		8	Free of accidents	.38	
		9	Low crime statistics	.45	
		10	Free of the presence of anti-social behaviours	.40	
		11	No graffiti and vandalism	.43	
Comfort and convenience (COC)	Environmental comfort (ENC)	1	A lot of veranda way/shade and other Protection from sun and rain	.55	.73
		2	Free of pollution, noise, smell and vibration	.30	
		3	Breezy	.62	
		4	Suitable temperature	.69	
Physical comfort (PHC)	Physical comfort (PHC)	1	Width of the walking space	.49	.86
		2	Lot of rest area and seating places	.51	
		3	Comfortable and sufficient seating	.66	
		4	Seating places adjacent to pedestrian flow	.62	
		5	Very clear pedestrian signage	.62	
		6	Lots of convenience place for shopping	.51	
		7	Very clear direction of the place	.53	
		8	A lot of greenery	.50	
		9	Very attractive building facades	.59	
		10	Availability of dust bins, telephones and toilets	.61	
		11	Lot of outdoor cafes, refreshment kiosks	.43	
		12	Lot of banking and communications centre	.52	
		13	Lot of spots for entertainment	.44	
		14	Lots of recreation facilities	.30	
	Maintenance (MNT)	1	Cleanliness of the street	.81	.90
		2	Maintenance of pavements	.73	
		3	The people in this place care about each other	.68	
		4	Choices of activities	.72	
		5	Pleasing place visually	.83	
Accessibility of the street (AOS)	-	1	Easy access by public transport\	.48	
		2	Easy to get to by foot	.31	
		3	Sufficient parking	.59	
			No physical barrier, wall, building, fence,	.56	

	4	curb		
	5	Well connected to paths of circulation or other places	.57	.83
	6	Easy to connect with people		
	7	Meeting places for people from the different culture	.60	
	8	Visibility of different activities	.44	
	9	Distances to areas from the parking area	.50	
	10	Distances to areas from public transport	.60	
			.62	

(Source: Authors)

The study aimed to seek the correlation between all variables and dimensions in physical and activities for user-friendly street (PAS) namely safety of the street (SOS), comfort and convenience (COC) and accessibility of the street (AOS). As mentioned before, there are three main variables in the COC (refer Table 1) dimension will also test the correlation between other dimensions. The correlations were tested by using the Pearson product-moment correlation coefficient. Preliminary analysis was performed to ensure no violation of the assumption or normality, linearity and homoscedasticity. The result in Table 2 shows that there are have a strong, positive correlation between ENC with SOS ($r=.55, p=.01$) and PHC with AOS ($r=.50, p=.01$). It was shown that when the need of environmental comfort increased, the need of safety of the street also increased. The increment is in linear way. This strong correlation is based on r value ($r = .55$) (Pallant, 2005). Meanwhile, there are have a moderate, positive correlation between AOS with SOS ($r=.35, p=.01$), ENC with AOS ($r=.39, p=.01$), PHC with ENC ($r=.32, p=.01$), MNT with ENC ($r=.40, p=.01$) and MNT with PHC ($r=.37, p=.01$). There are also slightly, positive correlation between MNT with SOS ($r=.23, p=.01$) and MNT with AOS ($r=.22, p=.01$). This is similar by Abdul Rahman (2014), who identify these qualities have a significant relationship to each other that contribute to the uses of the street.

Table 2. Pearson product-moment correlation between of safety of the street, accessibility of the street, environmental comfort, physical comfort and maintenance

Measures	1	2	3	4
(1) (SOS)				
(2) (AOS)	.353**			
(3) (ENC)	.554**	.391**		
(4) (PHC)	.110	.501**	.326**	
(5) (MNT)	.235**	.223**	.400**	.374**

N= 286, SOS= safety of the street, AOS= accessibility of the street, ENC= environmental comfort, PHC=physical comfort, MNT= maintenance

**p> Correlation is significant at the 0.01 level (2-tailed).

5.0 Conclusion

The research has examined the relationship between the physical qualities and activities of urban shopping street from the perspectives of the users' needs and perceptions in Kuala

Lumpur. The result of this study shows a significant correlation between the criteria of safety and accessibility with the uses of the street in the urban shopping street in Kuala Lumpur city centre. The finding found a positive relation between physical qualities of the street with the activities on the street. The high-level perception of safety, comfort and accessibility for walking related to high levels of walking activity. These qualities have strong had significant relationship with the uses of the shopping street in urban areas. However, the different group of users has different perceptions on attributes that make them used the street. The findings fulfil the gap in knowledge by identifying the most significant needs and user's perception of a street based on the situation in Malaysia. A user-friendly shopping street will facilitate the creation of a walkable environment that is seen as the most sustainable approach towards city planning and design in the future.

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